## NOTE XXXI.

# ON THE GENUS CEROBATES SCHH. AND DESCRIPTION OF SOME NEW SPECIES

BY

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The genus Cerobates Schh., widely spread in the oriental, australian and ethiopical regions, is chiefly characterized by having the anterior tibiae notched and strongly toothed on the inner edge, and by having the antennae filiform, not clubshaped; these two characters distinguish it respectively from Trachelizus Schh. and Stereodermus Lac.

In Lacordaire's classification of the Brenthidae 1) Cerobates belongs to the group Trachelizides, but in the new arrangement recently proposed by Prof. Sharp in the Biologia Centrali Americana 2), the Trachelizides are divided into two groups: Stereodermus, which has the anterior tibiae more or less notched and the hind coxae more than usually distant from one another, is considered as the typical genus of the group, whilst, in the latter, the typical genus Trachelizus has the anterior tibiae unnotched and the hind coxae separated by only the width usual in the Brenthidae. Cerobates should be placed in the Stereodermina.

Lacordaire's group of the Ephebocerides (not »tribe" as Prof. Sharp writes) is correctly suppressed being a group

<sup>1)</sup> Genera des Coléoptères, vol. VII, p. 417, 1866.

<sup>2)</sup> Coleoptera, vol. IV, part 6, p. 7, 1895.

established on two characters - namely the long and slender antennae clothed with delicate hairs, and the large eyes occupying the greater part of the head - remarkably variable in the different genera. Ephebocerus Schh. having the anterior tibiae unnotched and being connected with Trachelizus by some central-american species is united with the Trachelizina; Jonthocerus Lac., which has the inner edge of the anterior tibiae notched and toothed, and which is allied to Cerobates, is placed in the Stereodermina. The other genera of the Ephebocerides known at present are: Hyperephanus Senna and Anchisteus Kolbe: the first has been described by Prof. Sharp under the name of Homeolizus and is placed in the Stereodermina, the latter, having the anterior tibiae unnotched, must be united with the Trachelizina. In consequence the Stereodermina are represented by Stereodermus Lac., Stereobates Sharp, Hyperephanus Senna (Homeolizus Sharp), Jonthocerus Lac. and Cerobates Schh. In all these genera the anterior tibiae are constantly more or less notched or toothed on the inner edge, whilst the hind coxae, which are more than usually distant from one another in the typical genus Stereodermus Lac., are less widely separated in other genera; on the other hand the distance between these parts in the Trachelizina is also different, so that the only character which satisfactorily distinguishes the two groups is the first mentioned.

The genera of the subfamily Stereoderminae 1) may be differentiated as follows:

<sup>1)</sup> Prof. Sharp (l.c.) calls this division "group", not "subfamily" as I do. In his arrangement, the family Brenthidae is divided into two subfamilies: Brenthinae and Ulocerinae, corresponding to Lacordaire's tribes: Brenthides vrais and Ulocerides. As I retain Ulocerinae does not constitute a subfamily opposite to Brenthinae in Sharp and Lacordaire's sense, but simply a division of the same value as what is called group by these authors (see my note: Révision des espèces du genre Ulocerus Dalm.). I call these groups "subfamilies" as logical subdivisions of the family Brenthidae, and I indicate as groups the successive subdivisions of subfamilies, thence f.i.: family Brenthidae, subfamily Taphroderinae, group Cyphagogi, group Taphroderi, etc.

Notes from the Leyden Museum, Vol. XVII.

- I. Antennarum articuli tres apicales clavam plus minusve laxam formantes, semper longiores articulis praecedentibus.
  - A. Tarsi breves vel modice elongati, articulo 1º ad maximum aeque longo duobus sequentibus unitis.
    - a. Margines sulci prothoracis simplices vel elevati et rotundati, nunquam carinulati; elytrorum interstitia 2um et 3um conspicue intus curvata; tibiae normales . . . . . . Stereodermus Lac.

aa. Margines sulci prothoracis carinulati; elytrorum interstitia 2um et 3um vix intus curvata; tibiae lateraliter compressae, utrinque carinulatae . . . Stereobates Sharp.

- AA. Tarsi valde elongati, graciles, articulo 1º pedum posticorum evidenter longiore duobus articulis sequentibus unitis.
  - b. Corpus setosum; antennarum clava valde elongata; margines sulci prothoracis cari-

(Homæolizus Sharp).

- II. Antennarum articuli tres apicales clavam haud formantes: articulo apicali solo interdum longiore quam praecedente.
  - c. Oculi mediocres, antennae multo breviores corporis longitudine, articulis breviter pilosis . . . . . . . . Cerobates Schh.

cc. Oculi in o magni vel maximi,

antennae graciles, totius corporis longitudine parce breviores, articulis elongatis, cylindricis, longe, finissime pilosis . . . . . . . . . . . . . . Jonthocerus Lac.

The species of the genus *Cerobates* Schh. are of small size, of graceful form and often closely allied to one another, therefore the determination is not always easy. As I describe here some new species, I believe it useful to give a table for the determination of all the species known at present 1).

- I. Elytrorum angulus apicalis externus rotundatus et marginatus.
  - A. Prothorax omnino laevis, dorso planatus vel modice convexus.
    - a. Elytra juxta suturam basi vel usque ad apicem tristriata, versus latera laevius striata aut substriato-punctulata, raro omnino laevia; stria 3a dorsali usque ad apicem prolongata, interdum pone medium obsoletiore, raro obliterata.
      - b. Antennarum articulus apicalis conspicue longior articulo praecedente, subcylindricus, apice acuminatus.
        - c. Metarostrum et mesorostrum sulcata, elytrorum striae impunctatae.
          - 1. Subnitidus; capite, prothorace, élytrorum basi, regione suturali fasciaque transversa postmediana nigris vel ni-

<sup>1)</sup> Cerobates aciculatus Walker from Ceylon (Ann. and Magaz. of Nat. Hist., 3rd ser. III, p. 262, 1859) is unknown to me and the description insufficient. I believe this species does not belong to Cerobates.

Notes from the Leyden Museum, Vol. XVII.

gro-brunneis, cœterum fer- rugineus	sulcatus Boh.
nitidior, antennarum articulis medianis leviter longioribus	sulcirostris Thoms.
tum, elytrorum striae punctu-	
latae.	
3. Rufo-testaceus, nitidus, elytris dilutioribus, minus nitidia autum nimioanta	want mine n
tidis, sutura nigricante .  bb. Antennarum articulus apicalis	usamoaricus II.
vix longior praecedente, ovato-	
conicus.	
d. Elytra e tertio apicali usque	
ad apicem regulariter mo-	
diceque angustiora.	
e. Prorostrum longitudine	
subaequale metarostro.	
4. Elytra versus latera dis-	
tincte lineatim punctulata.	complanatus n.
5. Elytra versus latera plus	
minusve striata, nunquam	
omnino laevia; stria 3 dor-	
sali interdum pone medium angustiore, raro obliterata.	twietniatus Land
ee. Prorostrum distincte lon-	titistitutus Bulla.
gius metarostro.	
6. Elytra versus latera laevia,	
nitida	laevipennis n.
dd. Elytra a medio usque ad	•
apicem longe, conspicue	
angustiora.	
7	angustipennis Senna.
aa. Elytra juxta suturam basi tri-	
striata, lateribus laevissima vel	

laevius striata quam dorso; stria 3ª dorsali basi vel medium versus semper obliterata.

> 8. Minor, rostro sat robusto, capite pone oculos rotundato, elytrorum stria 3ª dorsali medium versus obliterata, lateribus laevissimis, sexsulcatus Motsch.

9. Major, rostro gracili, capite pone oculos sub-angulato, elytrorum stria 3ª dorsali basin versus obliterata, lateribus striatis . . . adustus Senna.

- AA. Prothorax longitudinaliter sulcatus vel foveolatus, raro basi tenue canaliculatus nunquam omnino laevis.
  - f. Elytra juxta suturam tristriata, stria 3ª dorsalis usque ad apicem prolongata.
    - g. Prothorax tenue interdum obsolete canaliculatus, canaliculo plerumque antice evanescente.

10. . . . . . . . debilis Thoms.

- gg. Prothorax distincte sulcatus vel foveolatus.
  - h. Stria 3ª dorsalis duplo lata praecedentis, interstitia anguste carinata.
    - . . . . . . . . fossulatus Motsch.
  - hh. Stria 3a dorsalis vix latior praecedente, interstitia minus angusta.
    - 12. Caput pone oculos longe rotundatum, prothoracis impressio antice abbreviata, elytra juxta sutu-

ram postice sub-quadri-	
	Grouvellei Senna.
13. Caput pone oculos brevi-	
ter rotundatum, protho- racis sulcus ad apicem	
•	
extensus, elytra antice et postice tristriata	himmaniana Sanna
ff. Elytra juxta suturam dimidio ba-	ottmanicus Senna.
sali tristriata, stria 3ª dorsali nun-	
quam apicem attingens.	
i. Elytra versus latera plus	
minusve distincte striata	
nunquam omnino laevia.	
14	canaliculatus Motsch
ii. Elytra versus latera laevia,	
nitida.	
j. Caput pone oculos acute	
angulatum, prothorax fo-	
vea ovata signatus.	
15	vitiensis Fairm.
jj. Caput pone oculos sub- rotundatum, prothorax	
sulcatus usque ad api-	
cem.	
16. Metarostrum sublaeve	australasiae Fairm.
17. Metarostrum distincte sul-	
catum	sumatranus Senna.
Elytrorum angulus apicalis externus	
breviter dentatus.	
18. Caput pone oculos rotun-	
datum, prothorax sulcatus	
usque ad apicem, elytra	
juxta suturam dimidio ba-	
sali tristriata, stria 3ª me-	
dium versus obliterata,	2
latera laevia	andamanicus n.

Notes from the Leyden Museum, Vol. XVII.

II.

## 1. Cerobates sulcatus Boh.

Schoenherr, Gen. Curcul. V, p. 488, 1840.

Distinctive characters: Teguments hardly shining; head, rostrum and prothorax black or dull brown, elytra with the base, sutural interstice and a transverse band behind the middle of the same colour or slightly paler, the remaining surface ferruginous; apical joint of the antennae distinctly longer than the preceding one, prothorax not furrowed, elytra striate. — Length variable from 5 to 10 mill. — Not common.

Hab. Cape of Good Hope and Port Natal.

## 2. C. sulcirostris Thoms.

Thomson, Archives entom. II, p. 119, 1858.

Distinctive characters: Resembles in all respects C. sulcatus Boh., but the teguments are more shining, the median antennal joints more elongate. Colour more or less intense according to the size of the specimens which is variable from 5 to 10 mill. — Common.

Hab. Gaboon, Congo and Usambara.

# 3. C. usambaricus, n. sp.

Rufo-testaceus, nitidus, elytris testaceis, minus nitidis, interstitio suturali nigricante; metarostro leviter foveolato, antennarum articulo apicali distincte longiore quam praecedente, prothorace haud sulcato, nitidissimo, elytris dorso et lateribus striatis. — Long. 7 mill.

Hab. Usambara (Plantation Derema).

One specimen collected by Mr. L. Conradt.

Head longer than the breadth at the base, angular behind the eyes, moderately convex above, obsoletely punctured; rostrum one half longer than the head; metarostrum foveolate, prorostrum broader at the tip. Antennae longer than the head and rostrum taken together, with the

median joints elongate, narrower at the base than anteriorly, the 9th and 10th slightly shorter than the median ones and almost oval; the apical joint cylindrical with the tip acuminate.

Prothorax oblong, not furrowed, obsoletely punctured, very shining. Elytra as long as  $2^{1}/_{2}$  the prothorax, with the base almost truncate, the shoulders rounded, striate above near the sutural interstice and at the sides, obsoletely punctured, the  $3^{rd}$  stria is prolonged down to the tip; the dorsal interstices moderately curved, narrower in the middle than in the remaining portion; apex of the elytra margined and rounded at the sides. Legs regular, anterior tibiae moderately toothed on the inner edge.

Body beneath rufous, shining; head and metarostrum at the sides with a line of hair-bearing punctures; prosternum foveolate anteriorly, impressed near the base; metasternum deeply furrowed, abdomen excavated at the base.

# 4. C. complanatus, n. sp.

C. complanatus Pow. in litt.

Depressus, ferrugineo-brunneus, nitidus, capite transverso, pone oculos subrotundato, fronte anguste foveolata; metarostro et mesorostro canaliculatis, antennis gracilibus, articulis medianis subovatis, apicali brevi, ovato-conico; prothorace valde dilatato, depresso, nitidissimo; elytris basi et apici juxta suturam tristriatis, medio bistriatis, stria 3ª dorsali apicem attingente, versus latera lineatim punctulatis. — Long.  $5^{1}$ /2 mill.

Hab. Bonjongo (Cameroon).

One specimen (Civic Museum of Genoa).

Head transverse, emarginate at the base, almost rounded at the sides behind the eyes, hardly convex above, front foveolate.

Metarostrum subconical, canaliculate; mesorostrum almost foveolate, prorostrum a little broader at the tip; antennae slender, short, with the median joints subovate, the apical one also short, ovato-conical.

Prothorax ovate, very broad and depressed, shining, very smooth, the apical margin narrow, truncate, notched at the sides.

Elytra as long as twice the prothorax, broad, emarginate at the base, the shoulders rounded; margined and rounded at the apex, tristriate along the sutural interstice at the base and at the tip, bistriate in the middle, the 3<sup>rd</sup> stria (external) prolonged down to the tip; the sides are punctured.

Legs paler, femora compressed, tibiae very short, the anterior ones deeply notched and toothed on the inner edge.

Body beneath reddish brown, shining, slightly scaled at the sides of the prothorax and in the impressions; head angularly notched at the base, mesorostrum bifoveolate laterally, prosternum depressed, almost marginate on the sides, metasternum and base of the abdomen depressed, the former channeled, apical segment of the latter impressed at the sides and in the middle.

Another specimen from the same locality differs in the following characters: head slightly narrower, more depressed, not foveolate between the eyes; rostrum shorter and broader, more depressed, very obsoletely channeled when viewed sideways; prothorax broader at the apical margin, truncate and less notched at the sides above, elytra shorter and hardly wider; head and metarostrum explanate beneath, the base of the former hairy; mesorostrum impressed, with the margins raised; metasternum with the sides of the median channel oblique inwardly; base of the abdomen broadly excavated, apical segment with the margin of the median foveola raised and hairy. These differences are probably sexual, but I am uncertain whether this specimen is a male or a female.

#### 5. C. tristriatus Lund.

C. Lorquini Jekel in litt., Trachelizus pumilus Dej., pygmaeus olim in Dejean's Catalogue.

Lund, Skrivt. af naturhist. selskab. V, 2, p. 66, 1802.

Distinctive characters: Head short, behind the Notes from the Leyden Museum, Vol. XVII.

eyes almost angulate, never regularly rounded, antennae with the 9th and 10th joints oval, the apical one short, ovato-conical; prothorax smooth, elytra along the sutural interstice tristriate, the 3rd dorsal stria in the typical form prolonged down to the tip; sides of the elytra distinctly striate. Colour ferruginous brown or chestnut, the sutural interstice darker. Sometimes the 3rd dorsal stria is narrower or obsolete behind the middle of the elytra. A smaller race (Trachelizus pumilus Dej., pygmaeus olim) is often pale brick coloured, has the 3rd stria interrupted or narrower behind the middle, and the sides of the elytra less evidently striate but never smooth and shining. The passages between the above mentioned forms are almost imperceptible among a great number of specimens and render a satisfactory separation of them very difficult. — Length 41/2-81/2 mill. - Very common.

Hab. From Ceylon to New-Guinea.

# 6. C. laevipennis, n. sp.

Ferrugineo-brunneus, nitidus, capite brevi, pone oculos subangulato, rostro gracili, longiusculo, parte antica distincte longiore quam postica, hac sublaevi; antennarum articulis 9° et 10° ovatis, apicali brevi, ovato-conico; prothorace haud sulcato, depresso, nitidissimo; elytris juxta suturam tristriatis, stria externa apicem pertinente, lateribus laevibus, nitidis; apice rotundato et marginato. — Long. 7 mill.

Hab. Sangi Islands.

One specimen in Walter Rothschild's Museum at Tring. This species is without any doubt the representative of *C. tristriatus* in the Sangi Islands, and differs only from that species by having the rostrum slender, the prorostrum a little longer, the sides of the elytra smooth and shining.

# 7. C. angustipennis Senna.

Notes from the Leyden Museum, XVI, p. 182, 1894.

Distinctive characters: Head short, angulate at Notes from the Leyden Museum, Vol. XVII.

the sides behind the eyes, metarostrum obsoletely foveolate; antennae with the 9th and 10th joints almost globuliform, the apical one short; prothorax smooth, depressed; elytra elongate, conspicuously attenuate behind the middle towards the tip, tristriate along the sutural interstice, the  $3^{rd}$  dorsal stria not interrupted; the sides are also striate. — Length  $5\frac{1}{2}-7\frac{1}{2}$  mill. — Not common.

Hab. Java.

#### 8. C. sexsulcatus Motsch.

Motschulsky, Etudes entom. VII, p. 95, 1858.

Distinctive characters: Head regularly rounded behind the eyes: metarostrum almost smooth, apical joint of the antennae short, a little longer than the preceding one, prothorax smooth, shining; elytra along the sutural interstice tristriate in the basal half, the 3<sup>rd</sup> stria (external) interrupted towards the middle of the elytra, never prolonged down to the tip; the sides are smooth, very shining; the apex rounded and margined. — Length 3<sup>1</sup>/<sub>2</sub>—6 mill. — Very common.

Hab. From Ceylon to New-Guinea.

#### 9. C. adustus Senna.

Notes from the Leyden Museum, XVI, p. 184, 1894.

Distinctive characters: Body elongate, colour reddish brown or chestnut, sutural region often darker; head angular at the sides, rostrum slender, antennae with the median joints almost globuliform or slightly oval but shorter than in *C. tristriatus* Lund, apical joint short, ovato-conical; prothorax broad, depressed, smooth. Elytra elongate, tristriate along the sutural interstice in the basal third, bistriate in the remaining portion; the 3rd stria (external) interrupted near the base, disc of each elytron smooth, sides striate. — Length 9—10 mill. — Not common.

Hab. Java.

#### 10. C. debilis Thoms.

Thomson, Arch. entom. II, p. 118, 1858.

Distinctive characters: Elongate, colour chestnut or reddish brown, the sutural region darker; head short, eyes very approximate at the base, metarostrum foveolate, apical joint of the antennae distinctly longer than the preceding one; prothorax depressed, obsoletely channeled in the basal half, sometimes up to the apex, never smooth; elytra tristriate along the sutural interstice, the 3<sup>rd</sup> dorsal stria prolonged down to the apex, sides striate, obsoletely punctured. — Length 5½—8 mill. — Common.

Hab. Congo, Gaboon and Zanzibar.

# 11. C. fossulatus Motsch.

Motschulsky, Etud. entom. VII, p. 96, 1858.

Distinctive characters: Head sulcate between the eyes, rostrum sulcate, except near the apex, antennae stoutish, prothorax sulcate up to the apex, elytra along the sutural interstice tristriate, the 3<sup>rd</sup> stria prolonged down to the tip, twice as broad as the internal one, interstices raised, keeled. — Length 5—6 mill. — Rare.

Hab. Burma.

## 12. C. Grouvellei Senna.

Bull. Soc. Entom. Ital. XXV, III, p. 307, t. II, f. 6, 1893.

Distinctive characters: Head rounded behind the eyes, furrowed on the front; metarostrum and mesorostrum furrowed; apical joint of the antennae moderately elongate; prothorax foveolate or sulcate, the furrow not prolonged up to the apical margin; elytra along the sutural interstice tristriate in the basal half, quadristriate behind the middle or near the apical declivity, sides very obsoletely striate-punctate. — Length 4—5½ mill. — Not common.

Hab. Sumatra and Brisbane.

#### 13. C. birmanicus Senna.

Ann. Soc. Entom. Belgique, XXXVIII, p. 364, 1894.

Distinctive characters: Head shorter than in C. Grouvellei Senna, rounded behind the eyes which are more approximate at the base, channeled above between the eyes; metarostrum and mesorostrum furrowed; apical joint of the antennae moderately longer than the preceding one; prothorax furrowed up to the apical margin; elytra along the sutural interstice tristriate, the  $3^{\rm rd}$  stria prolonged down to the apex, sides of the elytra obsoletely punctured, not shining. — Length  $5-6^{\rm t}/_2$  mill. — Not rare.

Hab. Burma.

## 14. C. canaliculatus Motsch.

Motschulsky, Etud. entom. VII, p. 96, 1858.

Distinctive characters: Head almost angulate at the sides, front and metarostrum more or less distinctly channeled, apical joint of the antennae moderately longer than the preceding one, prothorax furrowed up to the apical margin, elytra along the sutural interstice in the basal half tristriate, the 3<sup>rd</sup> stria (external) interrupted near the middle of the elytra, sides distinctly striate. — Length 4—5 mill. — Rare.

Hab. India and Perak.

#### 15. C. vitiensis Fairm.

Le Naturaliste, III, p. 422, 1881; Ann. Soc. Entom. France, 6e sér. I, p. 463, 1881.

Distinctive characters: Head behind the eyes angulate, metarostrum and mesorostrum striolate, apical joint of the antennae moderately longer than the preceding one, prothorax foveolate in the basal half, elytra along the sutural interstice tristriate in the basal half, the 3rd stria interrupted near the middle of the elytra, sides smooth, shining. — Length  $7\frac{1}{2}$  mill. — Not common.

Hab. Fiji Islands.

## 16. C. australasiae Fairm.

Ann. Soc. Entom. France, 6e sér. I, p. 463, 1881.

Distinctive characters: Head behind the eyes almost rounded, front obsoletely foveolate; metarostrum almost smooth; apical joint of the antennae moderately longer than the preceding one, prothorax furrowed up to the apical margin, elytra as in the preceding species but the striae less curved at the base. — Length  $4^{1}/_{2}$ —7 mill. — Not common.

Hab. Australia.

#### 17. C. sumatranus Senna.

Bull. Soc. Entom. Ital. XXV, 111, p. 306, t. III, f. 1, 1893.

Distinctive characters: Closely allied to *C. austral-asiae* Fairm., but the head slightly longer, the eyes less prominent, the front and metarostrum distinctly furrowed. — Length  $4^{1}/_{3}$ — $5^{3}/_{4}$  mill. — Not common.

Hab. Sumatra and Timor.

# 18. C. and amanicus, n. sp.

Elongatus, angustus, depressus, brunneo-rufus, nitidus, pedibus ferrugineo-brunneis capite pone oculos rotundato, metarostro tenue sulcato, prothorace sulcato usque ad apicem, elytris lateribus sub-parallelis, apice singulatim sub-rotundatis, angulo externo breviter retrorsum dentato, dorso juxta suturam dimidio basali tristriatis, stria 3ª medium versus obliterata; lateribus laevibus, nitidis. — Long. 6¹/₃ mill.

Hab. Andaman Islands.

A single specimen in my collection.

Head as long as broad, rounded behind the eyes which are rather large, base emarginate in the middle, slightly convex above; metarostrum slightly furrowed, prorostrum not longer, smooth. Antennae stoutish, with the joints ovate elongate, the apical joint moderately longer than

the preceding one, almost cylindrical, pointed at the tip.

Prothorax oblong-ovate, narrower anteriorly than at the base, depressed above, furrowed up to the apical margin.

Elytra elongate, the sides almost parallel, the apex rounded with the suture emarginate and the external angle shortly dentate; depressed above, tristriate near the sutural interstice in the basal half, the 3<sup>rd</sup> stria is interrupted near the middle of the elytra, sideways they are smooth, shining.

Legs regular. Body beneath more reddish, shining; metasternum and base of abdomen furrowed in the middle.

This species is easily distinguishable from all other known at present, by the peculiar character of the elytra, these having the external apical angles toothed; on the other hand it is closely allied to *C. australasiae* Fairm. and *C. sumatranus* Senna.

Florence, January 25th 1896.